Surgical Positions

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Operating Room Branch

Surgical Positions

- Plan for the class:
  - Review operation of the standard OR table.
  - Review anatomy related to positioning.
  - Review principles and guidelines for positioning.
  - Review positions.
  - Review questions.

Terminal Learning Objective

Given a list of surgical positions, identify descriptions, equipment, and hazards associated with each IAW cited references.

Enabling Learning Objective “a.”

Given a list of features, select those that are a part of the standard operating room table IAW Berry & Kohn.

Enabling Learning Objective “b.”

Given a list of anatomical structures, select those that may be injured due to incorrect positioning IAW Association of periOperative Registered Nurses (AORN).

Surgical Anatomy - Integumentary System

- Mechanisms of injury:
  - Pressure.
  - Shear.

Surgical Anatomy - Musculoskeletal System

- Mechanisms of injury:
  - Hyper-extension of joints.
  - Stretching muscles / ligaments.

Surgical Anatomy - Respiratory System

- Main problem - pressure against the chest or diaphragm that interferes with breathing.

Surgical Anatomy - Circulatory System

- May be effected by:
  - Pressure on blood vessels.
  - Abrupt changes in patient position.

Surgical Anatomy - Nervous System

- Primary mechanism of injury - stretching or placing pressure on superficial nerves.

Enabling Learning Objective “c.”

Given the appropriate information, select the basic principles of positioning IAW Berry & Kohn.

Principles for Selecting a Surgical Position

- Is respiration or circulation compromised?
- Does position place pressure on the skin or any nerve?
- Does position stretch muscles or hyperextend joints?
- Does position allow access for anesthesia?
- Does position expose the surgical site?
- Does position allow for patient differences?

Enabling Learning Objective “d.”

Given a list of guidelines, select those appropriate for positioning patients for surgery IAW Berry & Kohn.

Guidelines for Positioning

- **What the circulator and other people doing the positioning must think about or do:**
  - **Check table and gather equipment BEFORE THE PATIENT ENTERS THE ROOM!!!**
  - ***Ask for assistance*!!!**
  - **Check with anesthesia before moving an anesthetized patient - they HATE surprises!**
  - **Protect *yourself* - use proper body mechanics.**

Guidelines (con’t)

- Move patients S-L-O-W-L-Y and gently.
- Watch out for IV lines, tubes, drains, etc. - don’t kink them or pull them out.
- Once patients are positioned, CHECK THEM AGAIN for any problems (pressure, hyperextended joints, etc.). Don’t just look at the incision site - look at the WHOLE patient.

Enabling Learning Objective “e.”

Given the appropriate information, select the description, uses, equipment required, and the hazards associated with the supine position IAW AORN and Alexander.

Supine Position

- Patient on back with face toward ceiling.
- Legs uncrossed; arms at sides or on armboards.
- Uses:
  - Administration of general anesthesia
  - Abdominal surgery
  - Open heart surgery
  - Surgery on face, neck, or mouth
  - Most surgery on extremities

Supine Position

- Equipment required:
  - Pillow and padding materials
  - Shoulder roll for modifications that require hyperextension of the neck
  - Padded footrest available for reverse Trendelenburg

Supine Position

- Possible Hazards:
  - Skin breakdown
  - Lumbar strain
  - Nerve injury
  - Respiratory compromise with Trendelenburg
  - Circulatory compromise

Enabling Learning Objective “f.”

Given the appropriate information, select the description, uses, equipment required, and the hazards associated with the prone position IAW AORN and Alexander.

Prone Position

- Patient begins in supine position, log-rolled onto abdomen after anesthetized.
- Arms at sides or on armboards.
- Uses:
  - Surgery on the back or spine.
  - Surgery on the back of the legs.

Prone Position

- Equipment required:
  - Chest rolls or laminectomy frame
  - Pillows and padding materials
  - Headrest or support for head

Prone Position

- Possible Hazards:
  - Skin breakdown
  - Reduced respiration
  - Reduced circulation
  - Nerve damage
  - Eye or ear damage
  - Damage to breasts or genitals

Enabling Learning Objective “g.”

Given the appropriate information, select the description, uses, equipment required, and the hazards associated with the Kraske/Jackknife position IAW AORN and Alexander.

Kraske (Jackknife) Position

- Patient begins in supine position and is log-rolled onto abdomen.
- OR table flexed to approximately 90 degrees.
- Arms on armboards or at sides.
- Used almost exclusively for rectal surgery.

Kraske (Jackknife) Position

- Equipment required - same as for prone plus wide adhesive tape.
- Hazards - same as for prone position.

Enabling Learning Objective “h.”

Given the appropriate information, select the description, uses, equipment required, and the hazards associated with the lithotomy position IAW AORN and Alexander.

Lithotomy Position

- Patient begins in supine position.
- Legs lifted simultaneously into high or low stirrups.
- Arms usually on armboards.
- Uses:
  - GYN surgery.
  - GU surgery

Lithotomy Position

- Equipment required:
  - Stirrups - high or low.
  - Stirrup holders.
  - Padding materials.

Lithotomy Position

- Possible Hazards:
  - Skin breakdown
  - Nerve damage
  - Musculoskeletal injury
  - Respiratory compromise

Enabling Learning Objective “I.”

Given the appropriate information, select the description, uses, equipment required, and the hazards associated with the lateral position IAW AORN and Alexander.

Lateral Position

- Patient begins in supine position.
- Rolled onto side - operative side up.
- Bottom leg flexed; top leg straight.
- Bottom arm on armboard, top arm on special arm support or pillow.
- Head supported in alignment with body.

Lateral Position

- Uses:
  - Surgery of the chest or lungs.
  - Surgery on the kidney.
  - Hip surgery.
- Equipment required:
  - Beanbag or other stabilization device.
  - Pillows and padding materials.
  - Axillary roll.
  - Headrest or head support.

Lateral Position

- Possible Hazards:
  - Skin breakdown.
  - Nerve injury.
  - Reduced respiration.